

WHAT IS CLAIMED IS:

1. A rigid, three-dimensional, transparent structure comprising a cured filler-less epoxy compound.
2. The rigid, three-dimensional, transparent structure of claim 1 wherein said structure is cylindrical.
- 5 3. The rigid, three-dimensional, transparent structure of claim 2 wherein said cylindrical structure is a sight bowl.
4. The rigid, three-dimensional, transparent structure of claim 3 wherein said sight bowl is for use in a utility or industrial transformer.
5. The rigid, three-dimensional, transparent structure of claim 4 wherein said
10 sight bowl is for use in a high voltage bushing of said utility or industrial transformer.
6. The rigid, three-dimensional, transparent structure as in any of claims 1 -5 wherein said cured filler-less epoxy compound is a cycloaliphatic epoxy resin
7. The rigid, three-dimensional, transparent structure of claim 6 wherein said
15 cured filler-less epoxy compound is anhydride cured.
8. The rigid, three dimensional, transparent structure of claim 7 wherein said cured filler-less epoxy compound contains ultraviolet light absorbers.
9. A method of making a rigid, three-dimensional, transparent cured epoxy structure comprising:
20 obtaining a cured filler-less epoxy compound; and
pre-stressing said filler-less epoxy compound.

10. The method of claim 9 wherein said obtaining a cured filler-less epoxy compound comprises:
obtaining a molded filler-less epoxy compound; and
heating said filler-less epoxy compound until completely cured.
- 5 11. The method of claim 10 wherein said heating comprises exposing said filler-less epoxy compound to 150°C for twelve hours.
12. The method of any of claims 9-11 wherein said cured filler-less epoxy compound is a cycloaliphatic epoxy resin.
13. The method of claim 12 wherein said cured filler-less epoxy compound is
10 anhydride cured.
14. The method of claim 13 wherein said cured filler-less epoxy compound contains ultraviolet light absorbers.
15. The method of any of claims 9-11 wherein said pre-stressing comprises heating said cured filler-less epoxy compound under pressurized conditions.
- 15 16. The method of claim 15 wherein said cured filler-less epoxy compound is a cycloaliphatic epoxy resin.
17. The method of claim 15 wherein said pre-stressing comprises heating said cured filler-less epoxy compound under pressurized conditions.
18. The method of claim 17 wherein said pre-stressing comprises heating said
20 cured filler-less epoxy compound at a temperature of 105°C or above under pressurized conditions.
19. The method of claim 12 wherein said pre-stressing comprises:

heating said cured filler-less epoxy compound at 105°C for forty eight hours
under a pressure of about 2,500 psi;

cooling said cured filler-less epoxy compound;

heating said cured filler-less epoxy compound at 105°C for forty eight hours
5 under a pressure of about 2,500 psi;

cooling said cured filler-less epoxy compound; and

heating said cured filler-less epoxy compound at 105°C for forty eight hours
under a pressure of about 2,500 psi.

20. The method of claim 12 wherein said pre-stressing comprises heating cured
10 filler-less epoxy compound at 125°C for twelve hours under a pressure of
about 2,500 psi.